

What is Claimed is:

1. A method of simulating clip texturing, comprising:
- providing a clip stack of a portion of a texture image, the clip stack having a plurality of levels, wherein each level includes data representing the portion of the texture image at a different resolution, and for at least one of the plurality of levels, generating a stack of images, wherein each stack of images includes data representing a plurality of correlated images of increasingly reduced resolution;
- and
- rendering a geometry formed of at least one graphic primitive, using one of the stacks of images generated.
2. A method as recited in claim 1, further comprising generating for each stack of images, an object containing said data representing the plurality of correlated images of increasingly reduced resolution.
3. A method as recited in claim 2, wherein each said object further contains information identifying a location of a center of the portion of the texture image.
4. A method as recited in claim 1, further comprising:
- calling a geometry;

selecting one of the stacks of images;

determining whether a bounding box which defines bounds of the geometry is covered by a bounding box which defines bounds of the selected stack of images;

if the bounding box of the geometry is not covered by the bounding box covered by the selected stack of images, selecting a next one of the stack of images and repeating the determining; and

if the bounding box of the geometry is covered by the bounding box covered by the selected stack of images, rendering the geometry using the selected stack of images.

5. A method of texturing using a computer including a main memory and texture memory, comprising:

providing a storage media including data defining a texture image;

generating a clip stack of a portion of the texture image, the clip stack having a plurality of levels, wherein each level includes data representing the portion of the texture image at a different resolution;

storing the clip stack of the texture image in the main memory;

for at least one of the plurality of levels, generating a stack of images, wherein each stack of images includes data representing a plurality of correlated images of increasingly reduced resolution; and

storing the data representing the plurality of correlated images in texture memory.

6. A method as recited in claim 5, further comprising rendering a geometry formed of at least one graphic primitive, using one of the stacks of images generated.

7. A computer readable medium including computer executable code for performing texturing using a clip stack of a texture image, the clip stack having a plurality of levels, wherein each level includes data representing the portion of the texture image at a different resolution, said computer readable medium comprising;

code for generating for at least one of the plurality of levels, a stack of images, wherein each stack of images includes data representing a plurality of correlated images of increasingly reduced resolution; and

code for rendering a geometry formed of at least one graphic primitive, using one of the stacks of images generated.

8. A computer readable medium as recited in claim 7, further comprising code for generating for each stack of images, an object containing said data representing the plurality of correlated images of increasingly reduced resolution.

9. A computer readable medium as recited in claim 8, wherein each said object further contains information identifying a location of a center of the portion of the texture image.

10. A computer readable medium as recited in claim 7, further comprising:
code for calling a geometry;
code for selecting one of the stacks of images;
code for determining whether a bounding box which defines bounds of the geometry is covered by a bounding box which defines bounds the selected stack of images;

code for selecting a next stack of images and repeating the determining, if the bounding box of the geometry is not covered by the bounding box covered by the selected stack of images; and

code for rendering the geometry using the selected stack of images, if the bounding box of the geometry is covered by the bounding box covered by the selected stack of images.

11. A computer readable medium including computer readable code for performing texturing using a computer including a main memory and texture memory, said computer readable medium comprising:

code for accessing a storage media including data defining a texture image;

code for generating a clip stack of a portion of the texture image, the clip stack having a plurality of levels, wherein each level includes data representing the portion of the texture image at a different resolution;

code for storing the clip stack of the texture image in the main memory;

code for generating for at least one of the plurality of levels, a stack of images, each stack including data representing a plurality of correlated images of increasingly reduced resolution; and

code for storing the data representing the plurality of correlated images in texture memory.

12. A computer readable medium as recited in claim 11, further comprising code for rendering a geometry formed of at least one graphic primitive, using one of the stacks of images generated.

13. A programmed computer device for simulating clip texturing, comprising:

a removable storage media reader for inputting a clip stack of at least a portion of a texture image, the clip stack having a plurality of levels, wherein each level includes data representing the portion of the texture image at a reduced resolution;

a controller for generating for at least one of the plurality of levels, a stack

of images, each stack including data representing a plurality of correlated images of increasingly reduced resolution; and

a rendering unit for rendering a geometry formed of at least one graphic primitive, using one of the stacks of images generated.

14. A programmed computer device as recited in claim 13, further comprising a generating unit for generating for each stack of images an object containing said data representing the plurality of correlated images of increasingly reduced resolution.

15. A programmed computer device as recited in claim 14, wherein each said object further contains information identifying a location of a center of the portion of the texture image.

16. A programmed computer device as recited in claim 13, further comprising:

a calling unit for calling a geometry;

a selection device for selecting one of the stacks of images; and

a determining unit for determining whether a bounding box which defines bounds of the geometry is covered by a bounding box which defines bounds of the selected stack of images, wherein if the bounding box of the geometry is not

covered by the bounding box covered by the selected stack of images, a next one of the stack of images is selected by said selecting device and the determining unit repeats the determining procedure, and wherein if the bounding box of the geometry is covered by the bounding box covered by the selected stack of images, the geometry is rendered using the selected stack of images.

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